Wireless 802.11 B/G/N
ADSL2/2+ Modem Router
User Manual

Contents

1. Introduction 3
1.1 General Description 3
1.2 Specifications 3
1.2.1 ADSL Standard 3
1.2.2 Wireless Features 3
1.2.3 Software Features 3
1.2.4 Management 3
2. Hardware Installation 4
2.1 Packet content 4
2.2 Hardware Setup Procedures 4
3. Software Configuration 5
3.1 Quick Start 6
3.2 Interface Setup 10
3.2.1 Internet Settings 10
3.2.2 LAN Settings 11
3.2.3 Wireless LAN Settings 13
3.3 Advanced Setup 15
3.3.1 Firewall 15
3.3.2 Routing 15
3.3.3 NAT 16
3.3.4 QoS (Quality of Service) 18
3.3.5 VLAN 20
3.3.6 ADSL 21
3.4 Access Management 21
3.4.1 ACL 21
3.4.2 IP Filter 22
3.4.3 SNMP 23
3.4.4 UPnP 23
3.4.5 DDNS 24
3.4.6 CWMP 24
3.5 Maintenance 25
3.5.1 Administration 25
3.5.2 Time Zone 25
3.5.3 Firmware 25
3.5.4 SysRestart 26
3.5.5 Diagnostics 26
3.6 Status 27
3.6.1 Device Info 27
3.6.2 System Log 28
3.6.3 Statistics 28

1. Introduction

1.1 General Description

The ADSL2+ Wireless Router is a high-speed ADSL2+ Ethernet/Wireless router that is specifically designed to connect to the Internet and to directly connect to your local area network (LAN) via high-speed 10/100 Mbps Ethernet, or wireless LAN (WLAN). The ADSL2+ modem is compatible with the latest ADSL standards, including ADSL2 and ADSL2+, and supports up to 24 Mbps downstream and 1.5 Mbps upstream to deliver true broadband speed and throughput. The DSL router supports wireless 802.11b/g/n and the following security protocols: WEP, WPA, WPA2, and PSK. To ensure fully compatibility, the DSL device was tested with all major DSLAMs, and support standard 10/100 Mbps Base-T Ethernet interface Auto MDI/MDIX 10/100 Switch function allowing user easily to link to PC or other Switches/Hubs. The DSL device is an idea solution for multi-users utilizing build-in channel mode (PPPoE, PPPoA, IPoA, RFC1483), IP routing, NAT functionalities sharing the ADSL link. The DSL device is also a perfect solution for the residential users, it supports the users with bridge mode in host based PPPoE Client.

1.2 Specifications

1.2.1 ADSL Standard

ITU-T G.992.1(G.dmt)
ANSI T1.413 Issue 2
G.992.2 (G.lite)
G.994.1 (G.hs)
Auto-negotiating rate adaptation
ADSL2 G.dmt.bis (G.992.3)
ADSL2 G.lite.bis (G.992.4)
ADSL2+ (G.992.5)

1.2.2 Wireless Features

Compliant with IEEE 802.11 B/G/N
Up to 150 Mbps wireless operation rate
64/128 bits WEP for security
WPA support
ACL (MAC address Filtering)

1.2.3 Software Features

RFC-1483/2684 LLC/VC-Mux bridged/routed mode, RFC-1577 Classical IP over ATM, RFC-2516 PPPoE, RFC-2364 PPPoA, ITU-T 1.610 F4/F5 OAM send and receive loop-back, 802.1d Spanning-Tree Protocol, DHCP Client/Server/Relay ,NAT, RIP v1/v2, DNS Relay Agent, DMZ support, IGMP Proxy/Snooping, Stateful Packet Inspection, IP Packet Filtering , QoS, Dynamic DNS, UPnP support.

1.2.4 Management

Web-based Configuration Menu-driven Command-line Interpreter Telnet Remote Management SNMP v1/v2/Trap Firmware upgrade through FTP, TFTP and HTTP Configuration backup/restore Diagnostic Tool

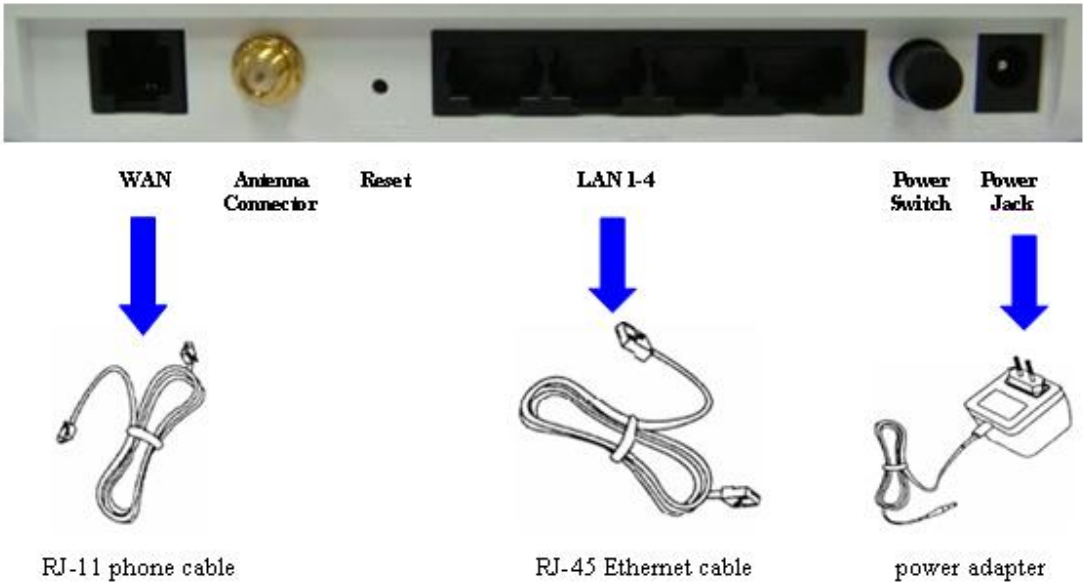
2. Hardware Installation

2.1Packet content

ADSL2+ Router * 1
Dedicated Power Adaptor *1
RJ-45 Ethernet cable*1
RJ-11 telephone cable*1
Manual CD*1
Antenna*1

2.2Hardware Setup Procedures

1. Connect RJ-11 line from ADSL2+ Wireless Router WAN port to DSLAM.
2. Connect the SMA from Antenna.
3. Connect RJ-45 line from your PC to ADSL2+ Wireless Router LAN1-4 port.
4. Connect the Power Adaptor from power jack to power outlet.
5. Push the power switch in “ON” mode.



3. Software Configuration

The DSL device is an ADSL2+ wireless router. When you power on the device, the system will boot up and connect to ADSL automatically. The default configurations for the system are listed below.

LAN IP address: 192.168.1.1,

NetMask:255.255.255.0

Wireless SSID: ADSL_Modem_Router

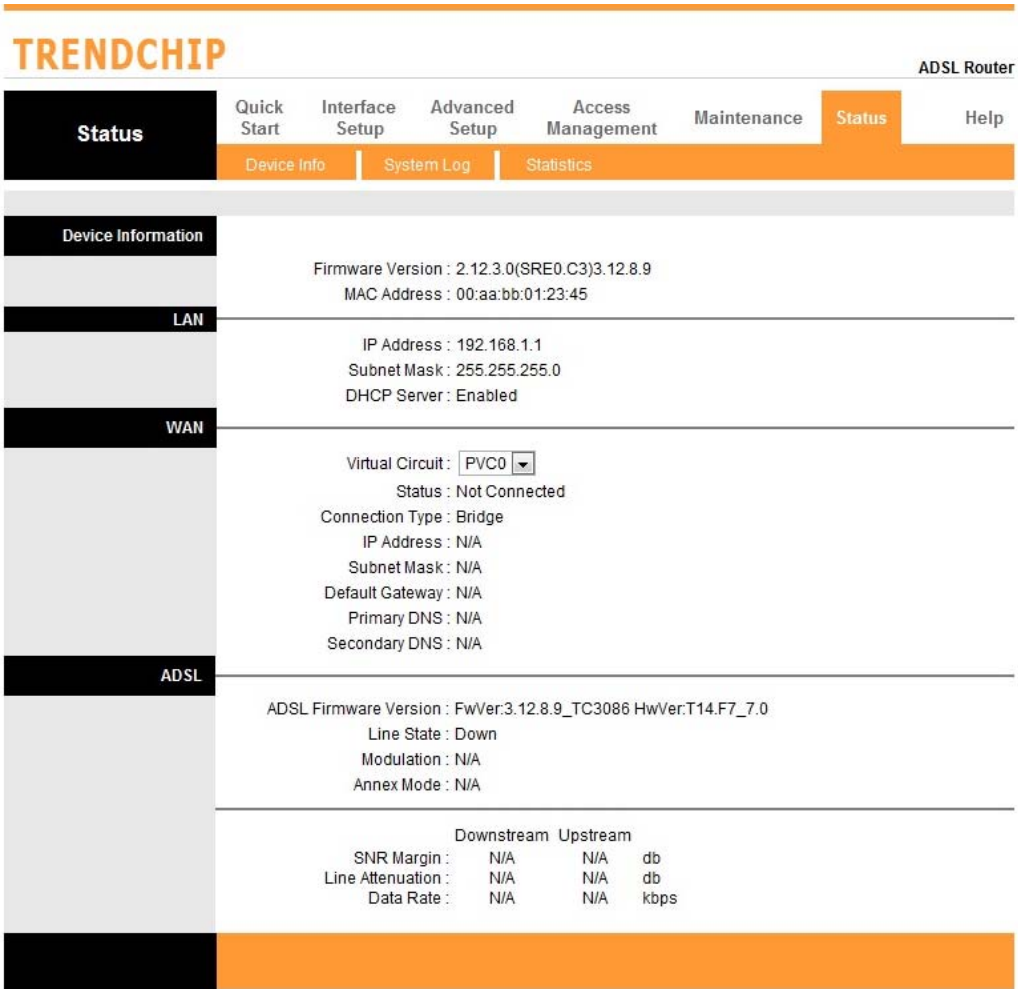
User can change settings via WEB browser. The following sections describe the set up procedures. Please set your PC's Ethernet port as follow:

IP address: 192.168.1.XXX

NetMask:255.255.255.0

Start your web browser. Type the Ethernet IP address of the modem/router on the address bar of the browser. Default IP address is 192.168.1.1. The **Enter Network Password** dialog box appears. Type the user name and password and then click OK.(default user name : **admin**; default password : **admin**) Once you have connected to ADSL2+ router. You will see the status page.

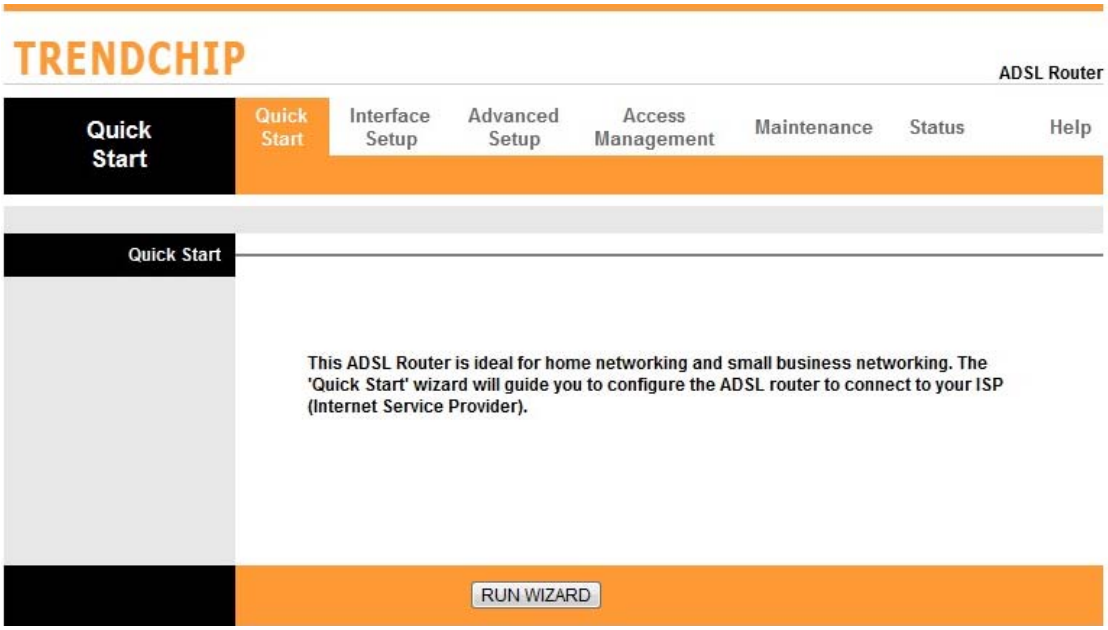
This page displays the ADSL modem/router's current status and settings.



3.1Quick Start

The Quick Start Wizard is a useful and easy utility to help setup the device to quickly connect to your ISP (Internet Service Provider) with only a few steps required. It will guide you step by step to configure the password, time zone, and WAN settings of your device. The Quick Start Wizard is a helpful guide for first time users to the device.

- **Click RUN WIZARD to move on:**

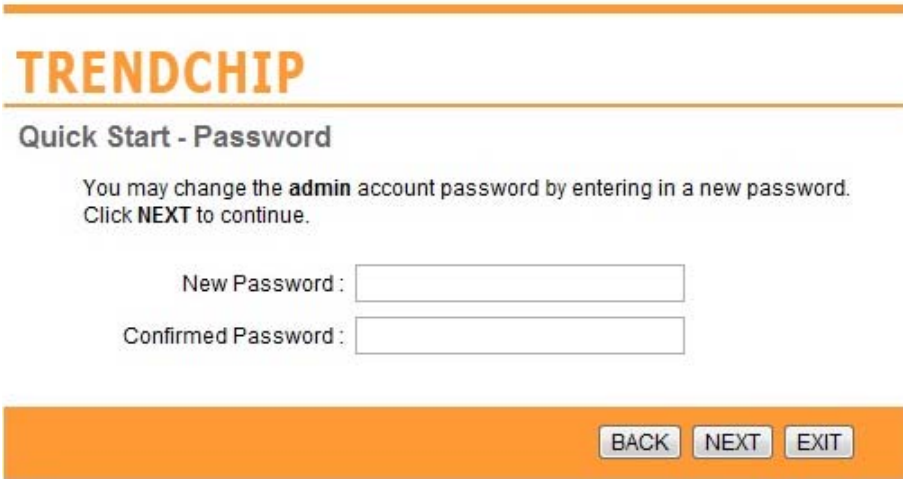

TRENDCHIP
ADSL Router
Quick Start
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
Quick Start
This ADSL Router is ideal for home networking and small business networking. The 'Quick Start' wizard will guide you to configure the ADSL router to connect to your ISP (Internet Service Provider).
RUN WIZARD

- **Run Wizard**

The Wizard will guide you through these four quick steps. Begin by clicking on **NEXT**.

TRENDCHIP
Quick Start
The Wizard will guide you through these four quick steps. Begin by clicking on NEXT.
Step 1. Set your new password
Step 2. Choose your time zone
Step 3. Set your Internet connection
Step 4. Save settings of this ADSL Router
NEXT
EXIT

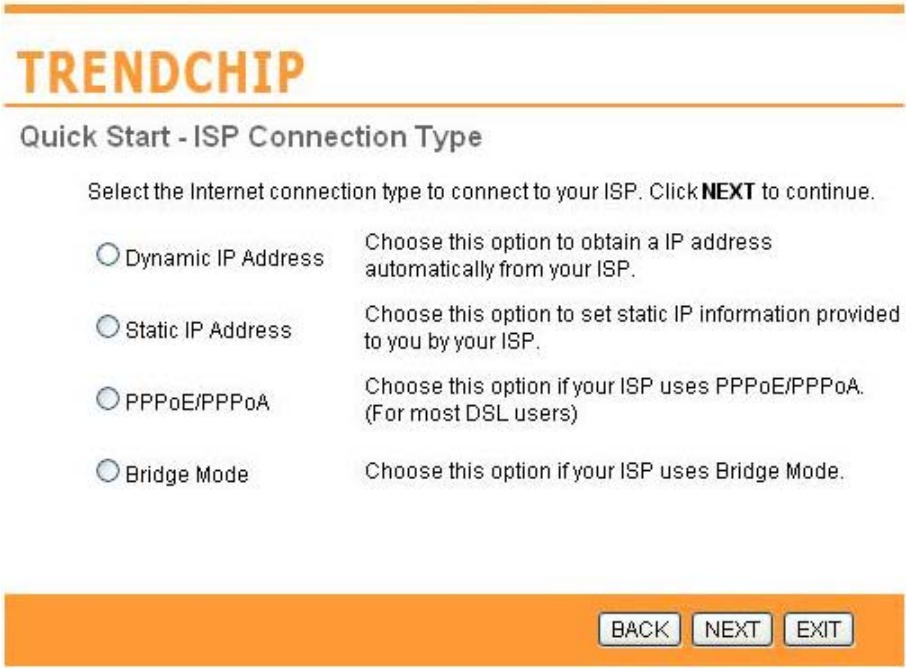
Step 1. Set your new password



Step 2. Choose your time zone

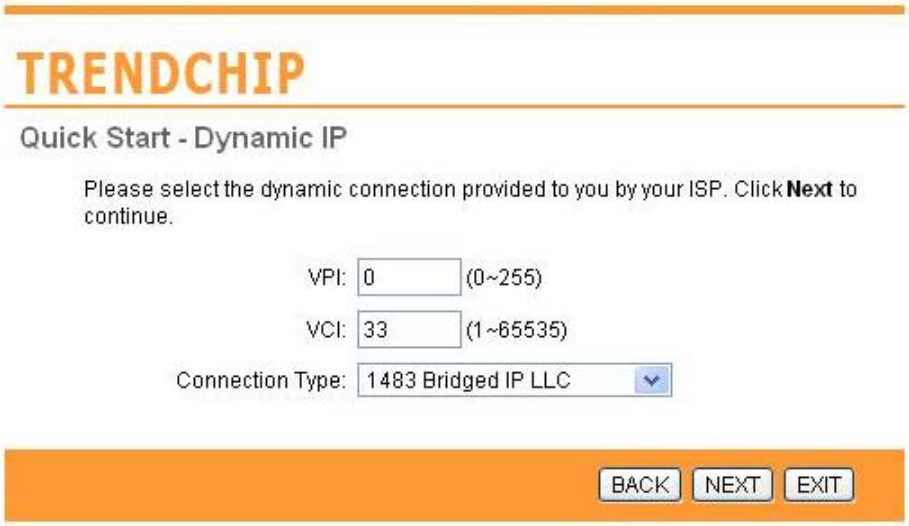
TRENDCHIP
Quick Start - Time Zone
Select the appropriate time zone for your location and click NEXT to continue.
(GMT+08:00) Beijing, Hong Kong, Perth, Singapore, Taipei
BACK
NEXT
EXIT

Step 3. Set your Internet connection


TRENDCHIP
Quick Start - ISP Connection Type
Select the Internet connection type to connect to your ISP. Click NEXT to continue.
Dynamic IP Address
Choose this option to obtain a IP address automatically from your ISP.
Static IP Address
Choose this option to set static IP information provided to you by your ISP.
PPPoE/PPPoA
Choose this option if your ISP uses PPPoE/PPPoA. (For most DSL users)
Bridge Mode
Choose this option if your ISP uses Bridge Mode.
BACK
NEXT
EXIT

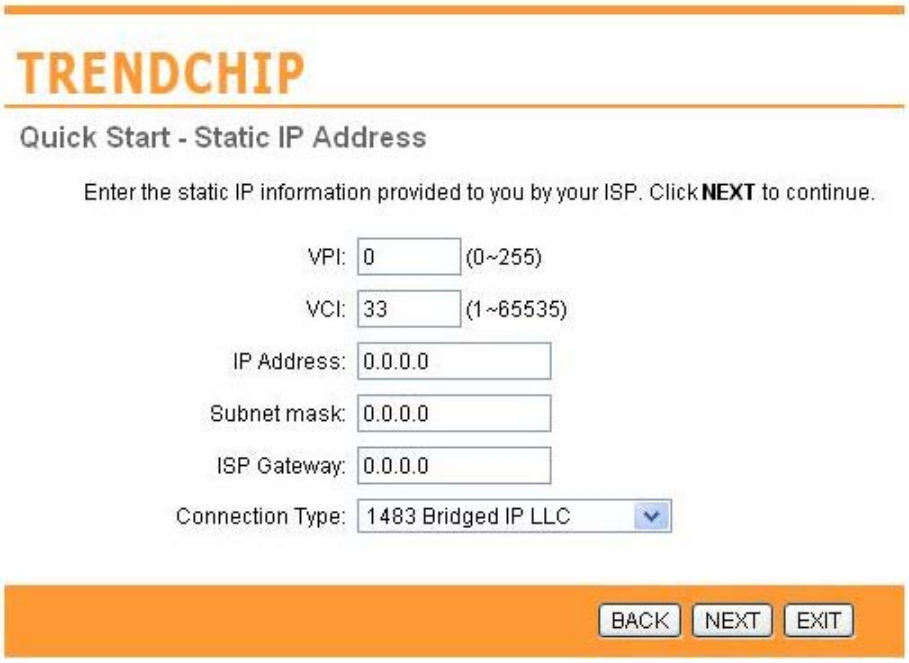
a. Dynamic IP Address

Choose this option to obtain an IP address automatically from your ISP.


TRENDCHIP
Quick Start - Dynamic IP
Please select the dynamic connection provided to you by your ISP. Click Next to continue.
VPI: 0 (0~255)
VCI: 33 (1~65535)
Connection Type: 1483 Bridged IP LLC
BACK
NEXT
EXIT

b. Static IP Address

Choose this option to set static IP information provided to you by your ISP.

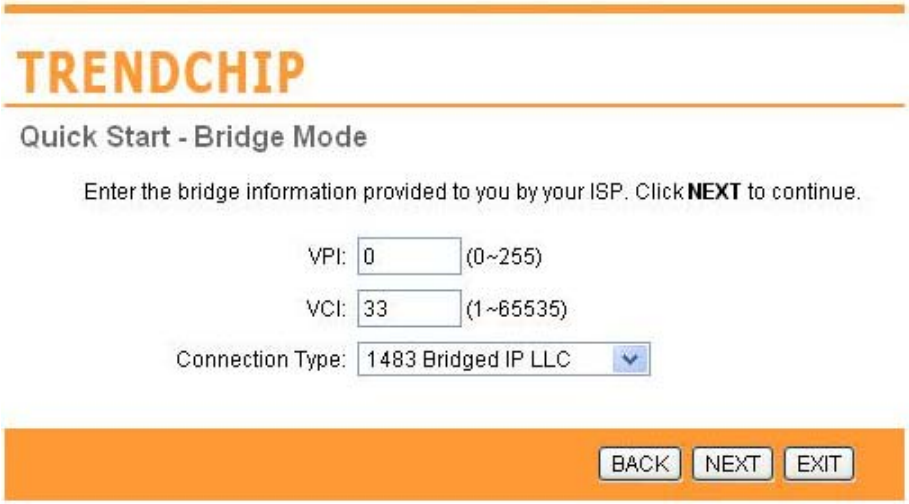


c. PPPoE/PPPoA

Choose this option, if your ISP uses PPPoE/PPPoA. (For most DSL users)

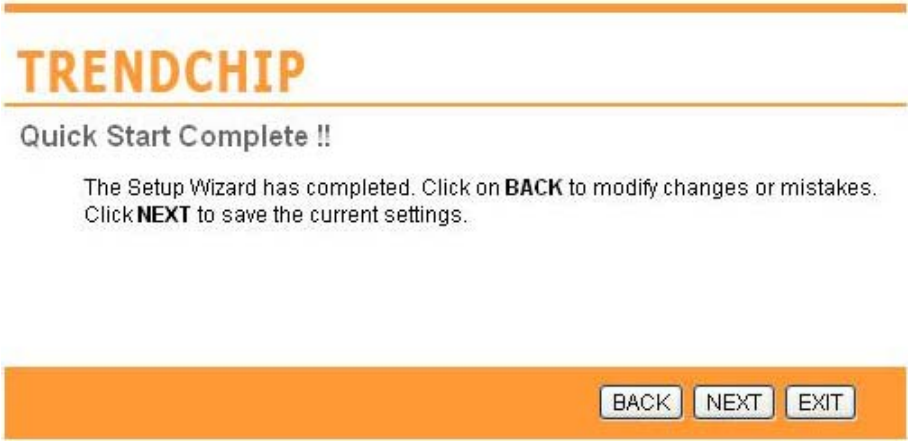
d. Bridge Mode

Choose this option, if your ISP uses Bridge Mode.


TRENDCHIP
Quick Start - Bridge Mode
Enter the bridge information provided to you by your ISP. Click NEXT to continue.
VPI: 0 (0~255)
VCI: 33 (1~65535)
Connection Type: 1483 Bridged IP LLC
BACK NEXT EXIT

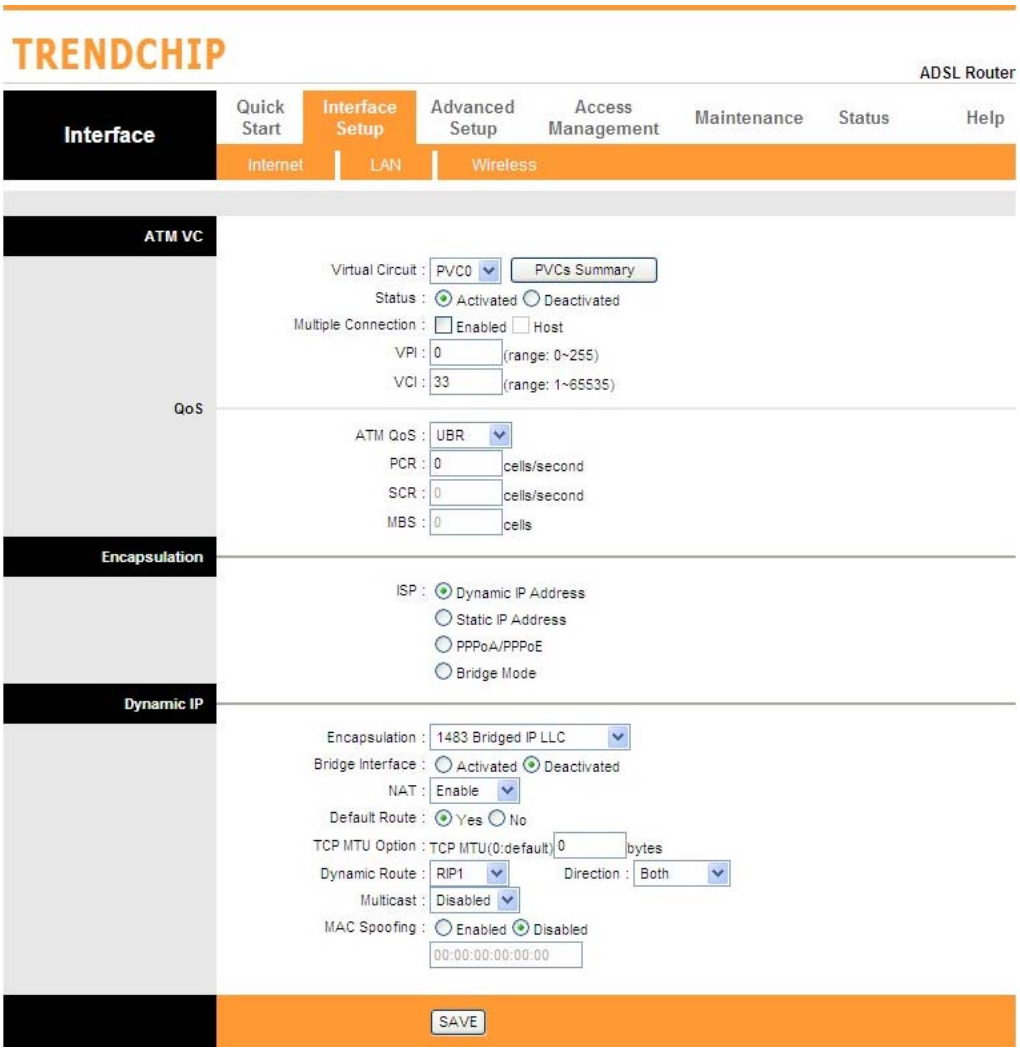
Step 4. Save settings of this ADSL Router

Click NEXT to save the settings


TRENDCHIP
Quick Start Complete !!
The Setup Wizard has completed. Click on BACK to modify changes or mistakes.
Click NEXT to save the current settings.
BACK NEXT EXIT

3.2Interface Setup

3.2.1 Internet Settings



a. ATM VC

ATM settings are used to connect to your ISP. Your ISP provides VPI, VCI settings to you. In this Device, you can totally setup 8 VCs on different encapsulations, if you apply 8 different virtual circuits from your ISP. You need to activate the VC to take effect. For PVCs management, you can use ATM QoS to setup each PVC traffic line's priority.

Item	Description
Virtual Circuit	Select the VC number you want to setup.
VPI	Virtual Path Identifier.
VCI	Virtual Channel Identifier.
ATM QoS	Select the Quality of Service types for this Virtual Circuit. The ATM QoS types include CBR (Constant Bit Rate), VBR (Variable Bit Rate) and UBR (Unspecified Bit Rate). These QoS types are all controlled by the parameters specified below, including PCR, SCR and MBS.
PCR	Peak Cell Rate.
SCR	Sustained Cell Rate.
MBS	Maximum Burst Size.

b. Encapsulation

Item	Description
Dynamic IP	Select this option if your ISP provides you an IP address automatically. This option is typically used for Cable services. Please enter the Dynamic IP information accordingly.
Static IP	Select this option to set static IP information. You will need to enter in the Connection type, IP address, subnet mask, and gateway address, provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which is four IP octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.
PPPoA/PPPoE	Select this option if your ISP requires you to use a PPPoE connection. This option is typically used for DSL services. Select Dynamic PPPoE to obtain an IP address automatically for your PPPoE connection. Select Static PPPoE to use a static IP address for your PPPoE connection. Please enter the information accordingly.
Bridge Mode	The modem can be configured to act as a bridging device between your LAN and your ISP. Bridges are devices that enable two or more networks to communicate as if they are two segments of the same physical LAN. Please set the Connection type.

c. NAT

Select this option to Activate/Deactivated the NAT (Network Address Translation) function for this VC. The NAT function can be activated or deactivated per PVC basis.

d. Default Route

If enable this function, the current PVC will be the default gateway to internet from this device.

e. Dynamic Route

Item	Description
RIP (Routing Information protocol)	Select this option to specify the RIP version, including **RIP-1**, **RIP-2M** and **RIP-2B**. RIP-2M and RIP-2B are both sent in RIP-2 format; the difference is that RIP-2M using Multicast and RIP-2 using Broadcast format.
RIP Direction	Select this option to specify the RIP direction. **None** is for disabling the RIP function. **Both** means the ADSL Router will periodically send routing information and accept routing information then incorporate into routing table. **IN only** means the ADLS router will only accept but will not send RIP packet. **OUT only** means the ADLS router will only send but will not accept RIP packet.

f. Multicast

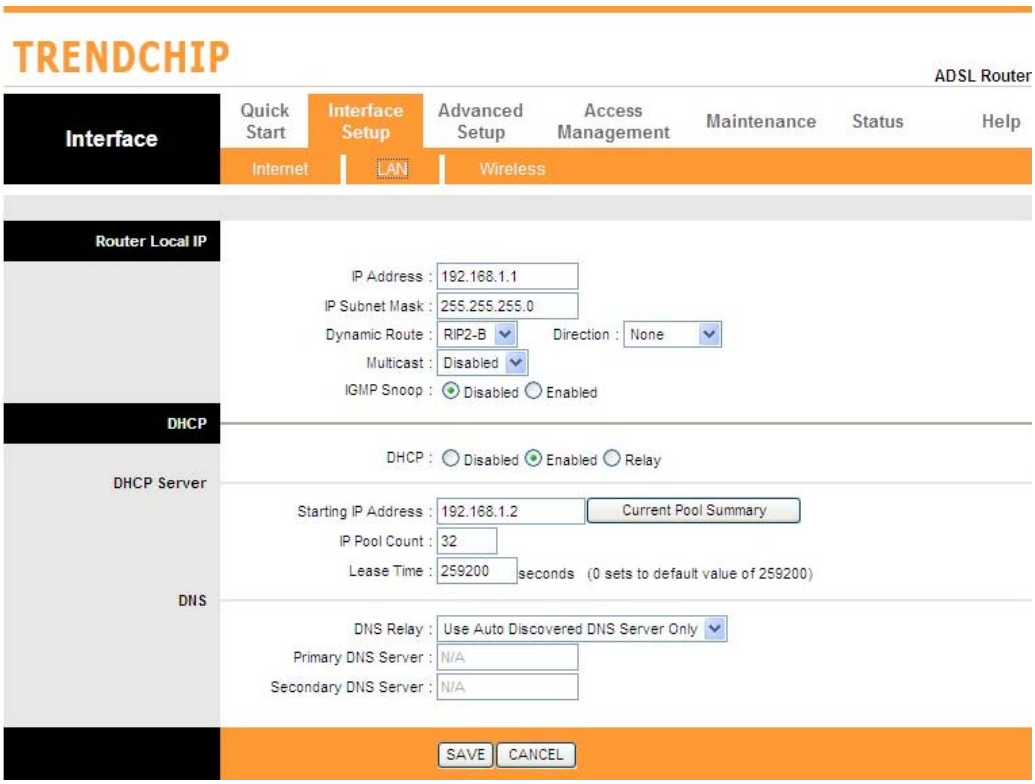
IGMP (Internet Group Multicast Protocol) is a session-layer protocol used to establish membership in a multicast group. The ADSL ATU-R supports IGMP version 1 (**IGMP-v1**), **IGMP-v2** and **IGMP-v3**. Select **Disabled** to disable it.

g. MAC Spoofing

Internet MAC Spoofing.

3.2.2 LAN Settings

These are the IP settings of the LAN interface for the device. These settings may be referred to as Private settings. You may change the LAN IP address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.



a. DHCP Server

DHCP stands for Dynamic Host Control Protocol. The DHCP Server gives out IP addresses when a device is booting up and request an IP address to be logged on to the network. That device must be set as a DHCP client to obtain the IP address automatically. By default, the DHCP Server is enabled. The DHCP address pool contains the range of the IP address that will automatically be assigned to the clients on the network.

Item	Description
Starting IP Address	The starting IP address for the DHCP server's IP assignment.
IP Pool Count	The max user pool size.
Lease Time	The length of time for the IP lease.

b. DHCP Relay

A DHCP relay is a computer that forwards DHCP data between computers that request IP addresses and the DHCP server that assigns the addresses. Each of the device's interfaces can be configured as a DHCP relay. If it is enable, the DHCP requests from local PCs will forward to the DHCP server runs on WAN side. To have this function working properly, please run on router mode only, disable the DHCP server on the LAN port, and make sure the routing table has the correct routing entry.

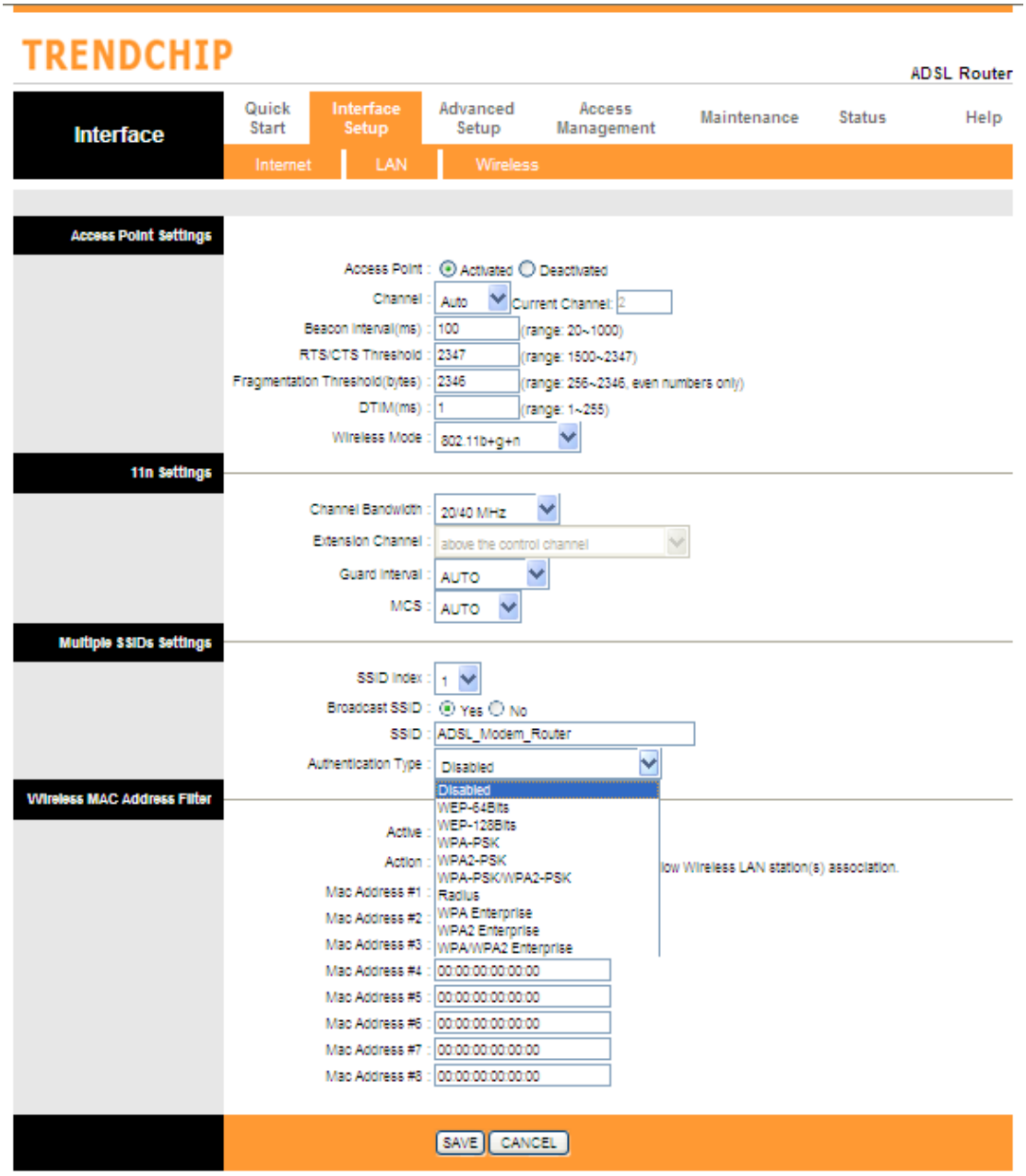
Item	Description
DHCP Server IP for relay agent	The DHCP server IP Address runs on WAN side.

c. DNS Relay

The DNS Configuration allows the user to set the configuration of DNS

Item	Description
DNS Relay selection	If user want to disable this feature, he just need to set both Primary and secondary DNS IP to 0.0.0.0.Using DNS relay, users can setup DNS server IP to 192.168.1.1 on their Computer. If not, device will perform as no DNS relay.

3.2.3 Wireless LAN Settings



Item	Description
SSID	The SSID is a unique name to identify the ADSL Router in the wireless LAN. Wireless clients associating to the ADSL Router must have the same SSID.
Broadcast	Select **No** to hide the SSID such that a station can not obtain the SSID through passive scanning. Select **Yes** to make the SSID visible so a station can obtain the

SSID	SSID through passive scanning.
Channel ID	The range of radio frequencies used by IEEE 802.11b/g wireless devices is called a channel.

a. WEP

WEP (Wired Equivalent Privacy) encrypts data frames before transmitting over the wireless network. Select **Disable** to allow all wireless computers to communicate with the access points without any data encryption. Select **64-bit WEP** or **128-bit WEP** to use data encryption.

Item	Description
Key#1~Key#4	The WEP keys are used to encrypt data. Both the ADSL Router and the wireless clients must use the same WEP key for data transmission. If you chose 64-bit WEP, then enter any 10 hexadecimal digits ("0-9", "A-F") preceded by 0x for each key (1-4). If you chose 128-bit WEP, then enter 26 hexadecimal digits ("0-9", "AF") preceded by 0x for each key (1-4).The values must be set up exactly the same on the Access Points as they are on the wireless client stations. The same value must be assigned to Key 1 on both the access point (your ADSL Router) and the client adapters, the same value must be assigned to Key 2 on both the access point and the client stations and so on, for all four WEP keys.

b. WPA-PSK

Wi-Fi Protected Access, pre-shared key. Encrypts data frames before transmitting over the wireless network.

Item	Description
Pre-shared Key	The Pre-shared Key is used to encrypt data. Both the ADSL Router and the wireless clients must use the same WPA-PSK key for data transmission.

c. Advanced setting

Item	Description
Beacon Interval	The Beacon Interval value indicates the frequency interval of the beacon. Enter a value between 20 and 1000. A beacon is a packet broadcast by the Router to synchronize the wireless network.
RTS Threshold	The RTS (Request To Send) threshold (number of bytes) for enabling RTS/CTS handshake. Data with its frame size larger than this value will perform the RTS/CTS handshake. Setting this attribute to be larger than the maximum MSDU (MAC service data unit) size turns off the RTS/CTS handshake. Setting this attribute to zero turns on the RTS/CTS handshake. Enter a value between 0 and 2432.
Fragment Threshold	The threshold (number of bytes) for the fragmentation boundary for directed messages. It is the maximum data fragment size that can be sent. Enter a value between 256 and 2432.
DTIM	This value, between 1 and 255, indicates the interval of the Delivery Traffic Indication Message (DTIM).

d. MAC Filter

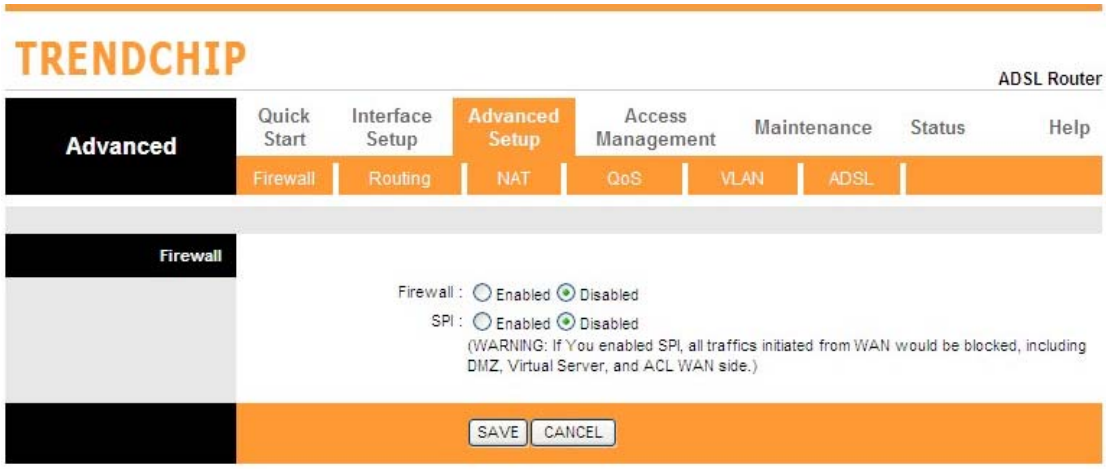
You can allow or deny a list of MAC addresses associated with the wireless stations access to the ADSL Router.

Item	Description
Status	Use the drop down list box to enable or disable MAC address filtering.
Action	Select **Deny Association** to block access to the router, MAC addresses not listed will be allowed to access the router. Select **Allow Association** to permit access to the router, MAC addresses not listed will be denied access to the router.

3.3Advanced Setup

3.3.1 Firewall

Select this option can automatically detect and block Denial of Service (DoS) attacks, such as Ping of Death, SYN Flood, Port Scan and Land Attack.



3.3.2 Routing

Select this Option will list the routing table information. You can also Add/Edit/Drop the static route.

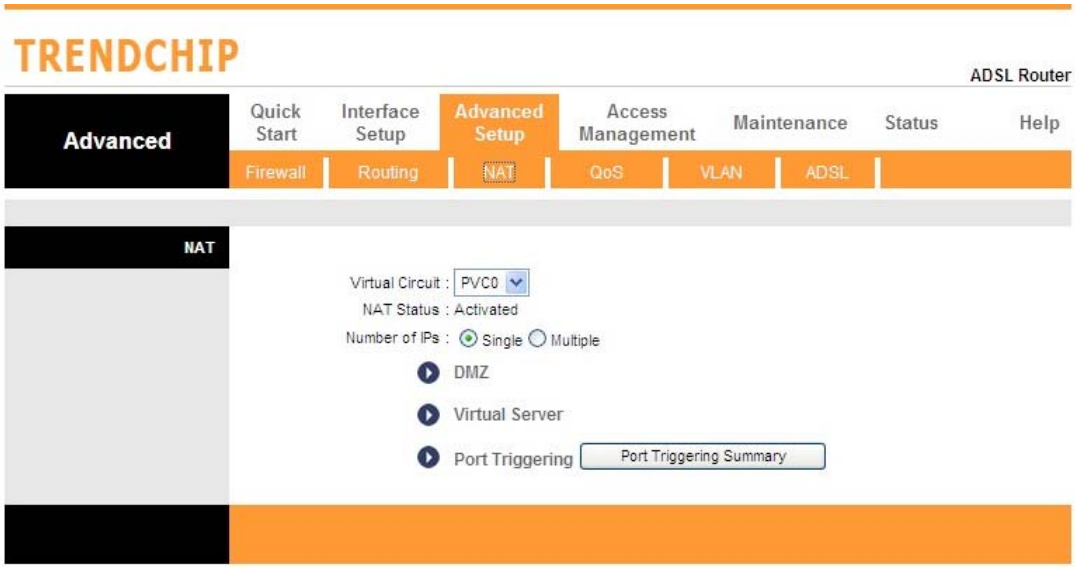
a. Static Route

Select this option to set static Routing information.

Item	Description
Destination IP Address	This parameter specifies the IP network address of the final destination.
IP Subnet Mask	Enter the subnet mask for this destination.
Gateway IP Address	Enter the IP address of the gateway. The gateway is an immediate neighbor of your ADSL Router that will forward the packet to the destination. On the LAN, the gateway must be a router on the same segment as your Router; over Internet (WAN), the gateway must be the IP address of one of the remote nodes.
Metric	Metric represents the "cost" of transmission for routing purposes. IP Routing uses hop count as the measurement of cost, with a minimum of 1 for directly connected networks. Enter a number that approximates the cost for this link. The number need not to be precise, but it must between 1 and 15. In practice, 2 or 3 is usually a good number.
Announced in RIP	This parameter determines if the ADSL router will include the route to this remote node in its RIP broadcasts. If set to Yes, the route to this remote node will be propagated to other hosts through RIP broadcasts. If No, this route is kept private and is not included in RIP broadcasts.

3.3.3 NAT

Select this option to setup the NAT (Network Address Translation) function for your ADSL router.



Item	Description
Virtual Circuit	Enter Virtual Circuit Index that you plan to setup for the NAT function
NAT Status	This field shows the current status of the NAT function for the current VC.
Number of IPs	This field is to specify how many IPs are provided by your ISP for current VC. It can be single IP or multiple IPs. Note: for VCs with single IP, they share the same DMZ and Virtual servers; for VCs with multiple IPs, each VC can set DMZ and Virtual servers. Furthermore, for VCs with multiple IPs, they can define the Address Mapping rules; for VCs with single IP, since they have only one IP, there is no need to individually define the Address Mapping rule.

a. DMZ

A DMZ (demilitarized zone) is a host between a private local network and the outside public network. It prevents outside users from getting direct access to a server that has company data. Users of the public network outside the company can access only the DMZ host.

Item	Description
DMZ Host IP Address	Enter the specified IP Address for DMZ host on the LAN side.

b. Virtual Server

The Virtual Server is the server or server(s) behind NAT (on the LAN), for example, Web server or FTP server, that you can make visible to the outside world even though NAT makes your whole inside network appear as a single machine to the outside world.

Item	Description
Rule Index	The Virtual server rule index for this VC. You can specify 10 rules in maximum. All the VCs with single IP will use the same Virtual Server rules.
Start & End port number	Enter the specific Start and End Port number you want to forward. If it is one port only, you can enter the End port number the same as Start port number. For example, you want to set the FTP Virtual server, you can set the start and end port number to 21.
Local IP Address	Enter the IP Address for the Virtual Server in LAN side.

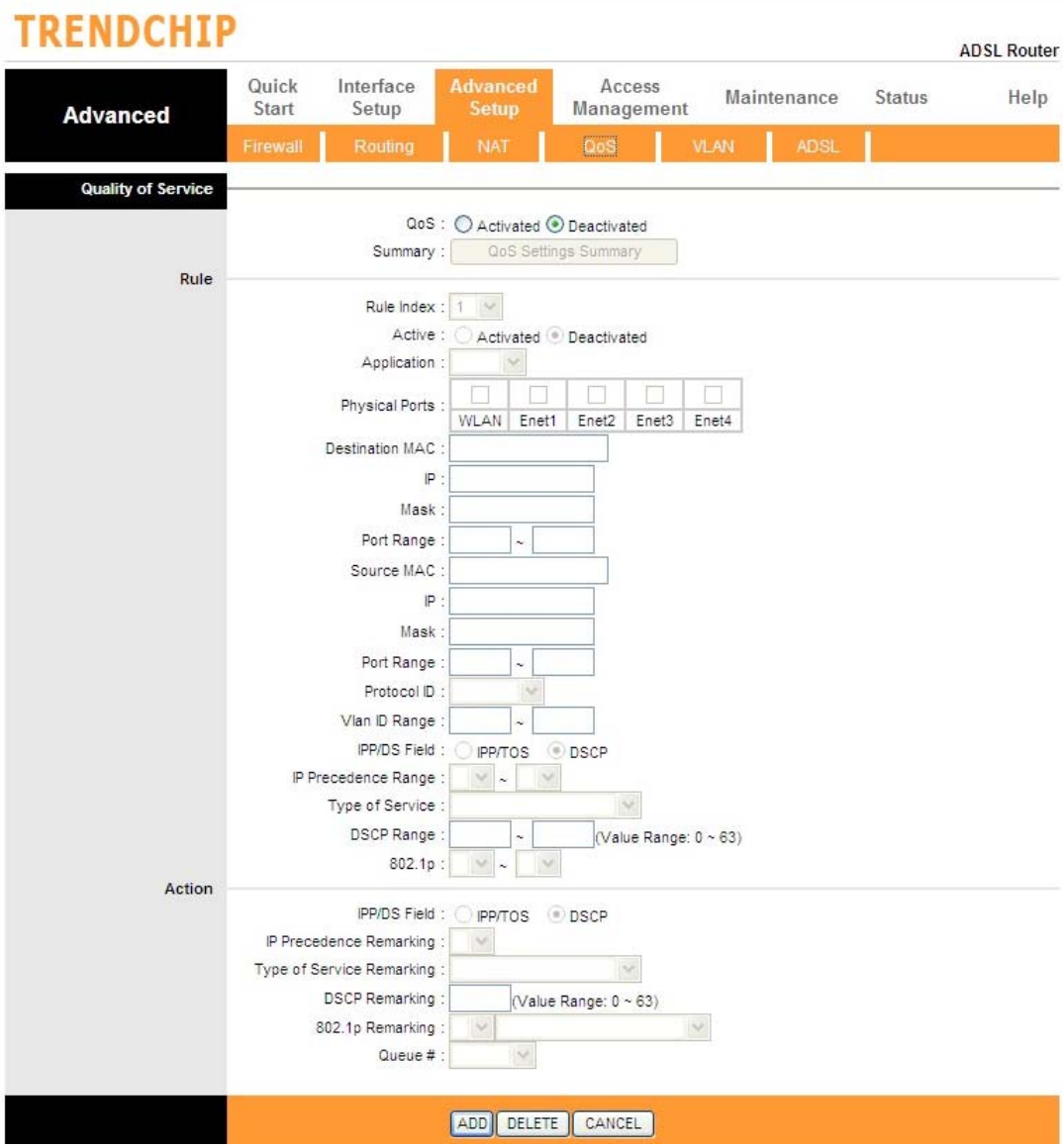
c. IP Address Mapping

The IP Address Mapping is for those VCs that with multiple IPs. The IP Address Mapping rule is per-VC based. (Only for Multiple IPs' VCs).

Item	Description
Rule Index	The Virtual server rule index for this VC. You can specify 10 rules in maximum. All the VCs with single IP will use the same Virtual Server rules.
Rule Type	There are four types of one-to-one, Many-to-One, Many-to-Many Overload and Many-to-Many No-overload.
Local Start & End IP	Enter the local IP Address you plan to mapped to. Local Start IP is the starting local IP address and Local End IP is the ending local IP address. If the rule is for all local IPs, then the Start IP is 0.0.0.0 and the End IP is 255.255.255.255.
Public Start & End IP	Enter the public IP Address you want to do NAT. Public Start IP is the starting public IP address and Public End IP is the ending public IP address. If you have a dynamic IP, enter 0.0.0.0 as the Public Start IP.

3.3.4 QoS (Quality of Service)

This option will provide better service of selected network traffic over various technologies.



a. 802.1p

Select this option to Activate/Deactivated the 802.1p IEEE 802.1p establishes eight levels of priority (0 ~ 7). Although network managers must determine actual mappings, IEEE has made broad recommendations. Seven is the highest priority which is usually assigned to network-critical traffic such as Routing Information Protocol (RIP) and Open Shortest Path First (OSPF) table updates. Five and six are often for delay-sensitive applications such as interactive video and voice. Data classes four through one range from controlled-load applications such as streaming multimedia and business-critical traffic - carrying SAP data, for instance - down to "loss eligible" traffic. Zero is used as a best-effort default priority, invoked automatically when no other value has been set.

b. IP QoS

Select this option to Activated/Deactivated the IP QoS on different types (IP ToS and DiffServ). IP QoS function is intended to deliver guaranteed as well as differentiated Internet

services by giving network resource and usage control to the Network operator.

c. Applications QoS

Select this option to Activated/Deactivated the different application packets prioritized on the queues.

d. VLAN Group QoS

Select this option to Activated/Deactivated the 4094 VID on the 4 different queues. VID (VLAN ID) is the identification of the VLAN, which is basically used by the standard 802.1Q. It has 12 bits and allow the identification of 4096 (2^12) VLANs. Of the 4096 possible VIDs, a VID of 0 is used to identify priority frames and value 4095 (FFF) is reserved, so the maximum possible VLAN configurations are 4,094.

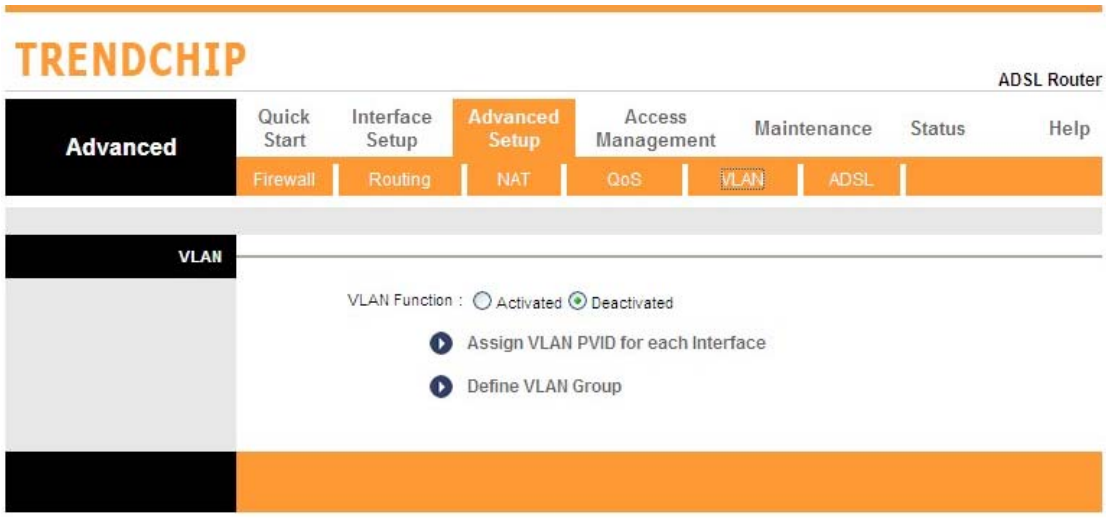
3.3.5 VLAN

Virtual LAN (VLAN) is a group of devices on one or more LANs that are configured so that they can communicate as if they were attached to the same wire, when in fact they are located on a number of different LAN segments. Because VLANs are based on logical instead of physical connections, it is very flexible for user/host management, bandwidth allocation and resource optimization.

1.Port-Based VLAN: each physical switch port is configured with an access list specifying membership in a set of VLANs.

2.ATM VLAN - using LAN Emulation (LANE) protocol to map Ethernet packets into ATM cells and deliver them to their destination by converting an Ethernet MAC address into an ATM address.

The key for the IEEE 802.1Q to perform the above functions is in its tags. 802.1Q-compliant switch ports can be configured to transmit tagged or untagged frames. A tag field containing VLAN (and/or 802.1p priority) information can be inserted into an Ethernet frame. If a port has an 802.1Q-compliant device attached (such as another switch), these tagged frames can carry VLAN membership information between switches, thus letting a VLAN span multiple switches. However, it is important to ensure ports with non-802.1Q-compliant devices attached are configured to transmit untagged frames. Many NICs for PCs and printers are not 802.1Q-compliant. If they receive a tagged frame, they will not understand the VLAN tag and will drop the frame. Also, the maximum legal Ethernet frame size for tagged frames was increased in 802.1Q (and its companion, 802.3ac) from 1,518 to 1,522 bytes. This could cause network interface cards and older switches to drop tagged frames as "oversized."



a. PVID (Port VLAN ID)

Each physical port has a default VID called PVID (Port VID). PVID is assigned to untagged frames or priority tagged frames (frames with null (0) VID) received on this port.

3.3.6 ADSL

The ADSL feature can be selected when you meet the physical connection problem. Please check the proper settings with your Internet service provider.

a. ADSL Mode

Select the ADSL operation mode which your ADSL connection uses.

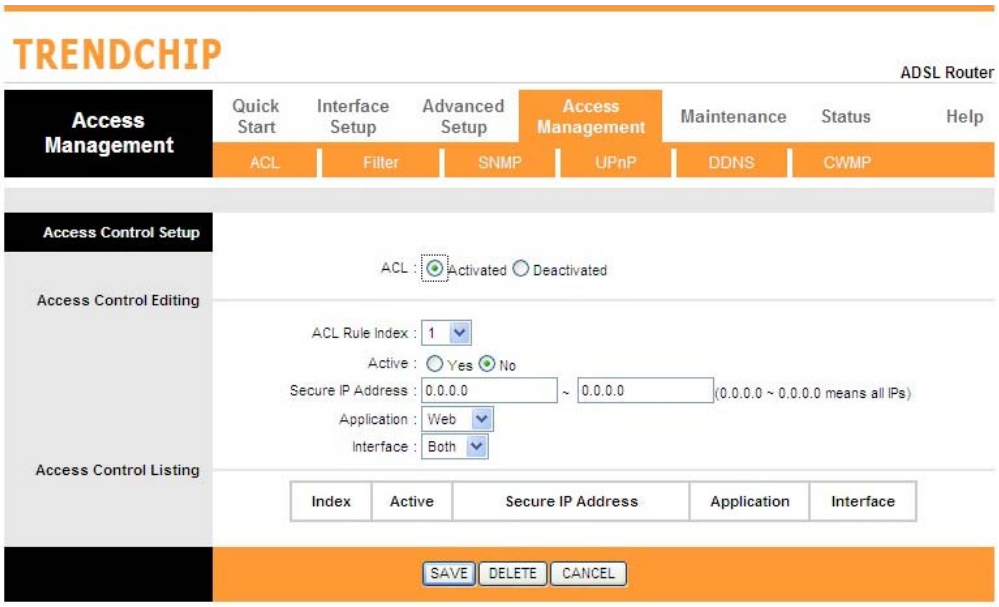
b. ADSL Type

Select the ADSL operation type which your ADSL connection uses.

3.4Access Management

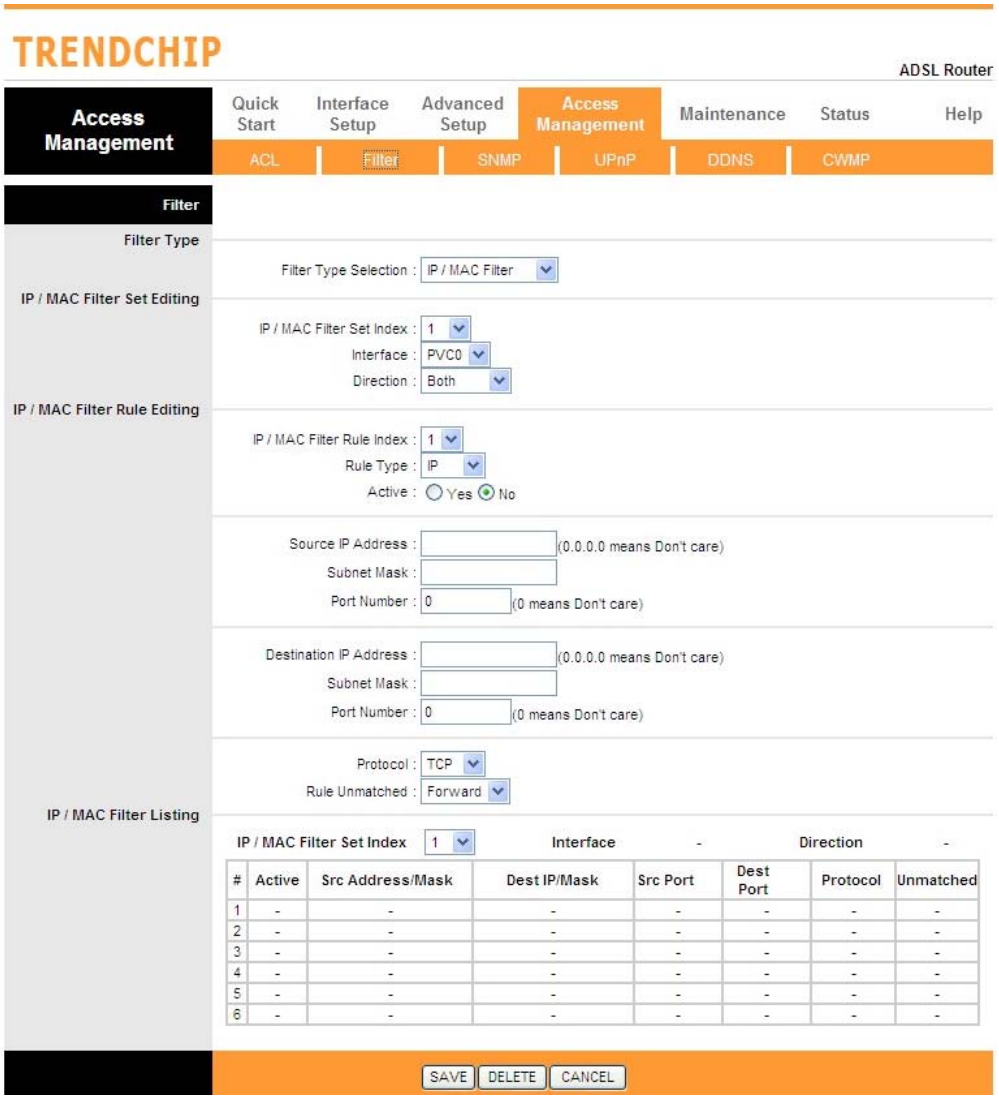
3.4.1 ACL

The user may remotely access the ADSL Router once setting his IP as a Secure IP Address through selected applications. With the default IP 0.0.0.0, any client would be allowed to remotely access the ADSL Router.



3.4.2 IP Filter

The user can set different IP filter rules of a given protocol (TCP, UDP or ICMP) and a specific direction (incoming, outgoing, or both) to filter the packets.


TRENDCHIP
ADSL Router
Access Management
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
ACL
Filter
SNMP
UPnP
DDNS
CWMP
Filter
Filter Type
Filter Type Selection : IP / MAC Filter
IP / MAC Filter Set Editing
IP / MAC Filter Set Index : 1
Interface : PVC0
Direction : Both
IP / MAC Filter Rule Editing
IP / MAC Filter Rule Index : 1
Rule Type : IP
Active : Yes No
Source IP Address : (0.0.0.0 means Don't care)
Subnet Mask :
Port Number : 0 (0 means Don't care)
Destination IP Address : (0.0.0.0 means Don't care)
Subnet Mask :
Port Number : 0 (0 means Don't care)
Protocol : TCP
Rule Unmatched : Forward
IP / MAC Filter Listing
IP / MAC Filter Set Index 1 Interface - Direction -
Active Src Address/Mask Dest IP/Mask Src Port Dest Port Protocol Unmatched
1 - - - - - - -
2 - - - - - - -
3 - - - - - - -
4 - - - - - - -
5 - - - - - - -
6 - - - - - - -
SAVE
DELETE
CANCEL

3.4.3 SNMP

Simple Network Management Protocol is used for exchanging information between network devices.

Item	Description
Get Community	Select to set the password for the incoming Get- and GetNext requests from the management station.
Set Community	Select to set the password for incoming Set requests from the management station.

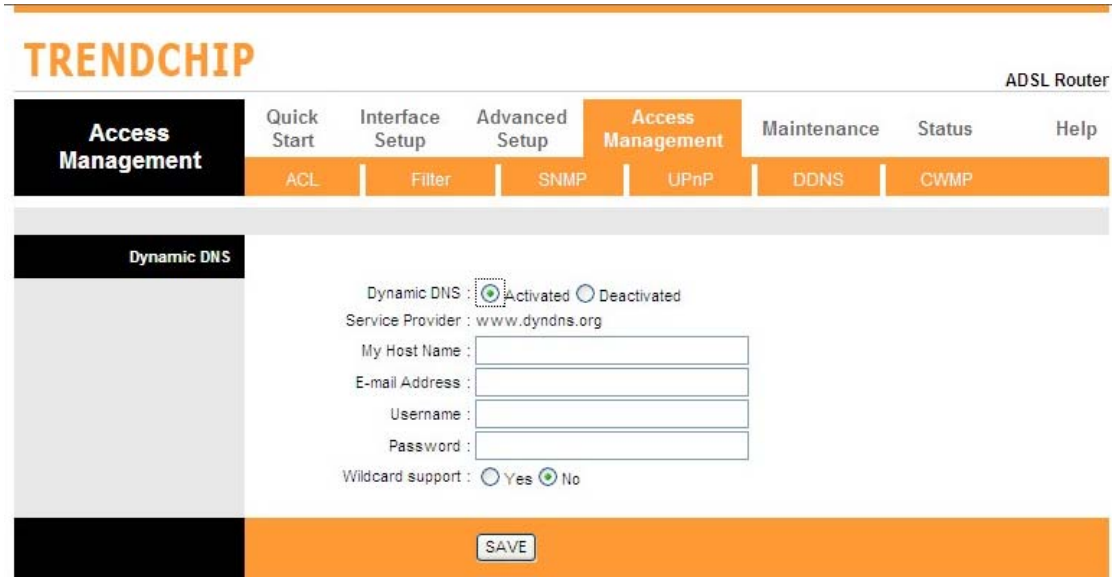
3.4.4 UPnP

UPnP (Universal Plug and Play) is a distributed, open networking standard that uses TCP/IP for simple peer-to-peer network connectivity between devices. A UPnP device can dynamically join a network, obtain an IP address, convey its capabilities and learn about other devices on the network. In turn, a device can leave a network smoothly and automatically when it is no longer in use. UPnP broadcasts are only allowed on the LAN.

Item	Description
Auto-Configure	UPnP network devices can automatically configure network addressing, announce their presence in the network to other UPnP devices and enable exchange of simple product and service descriptions.

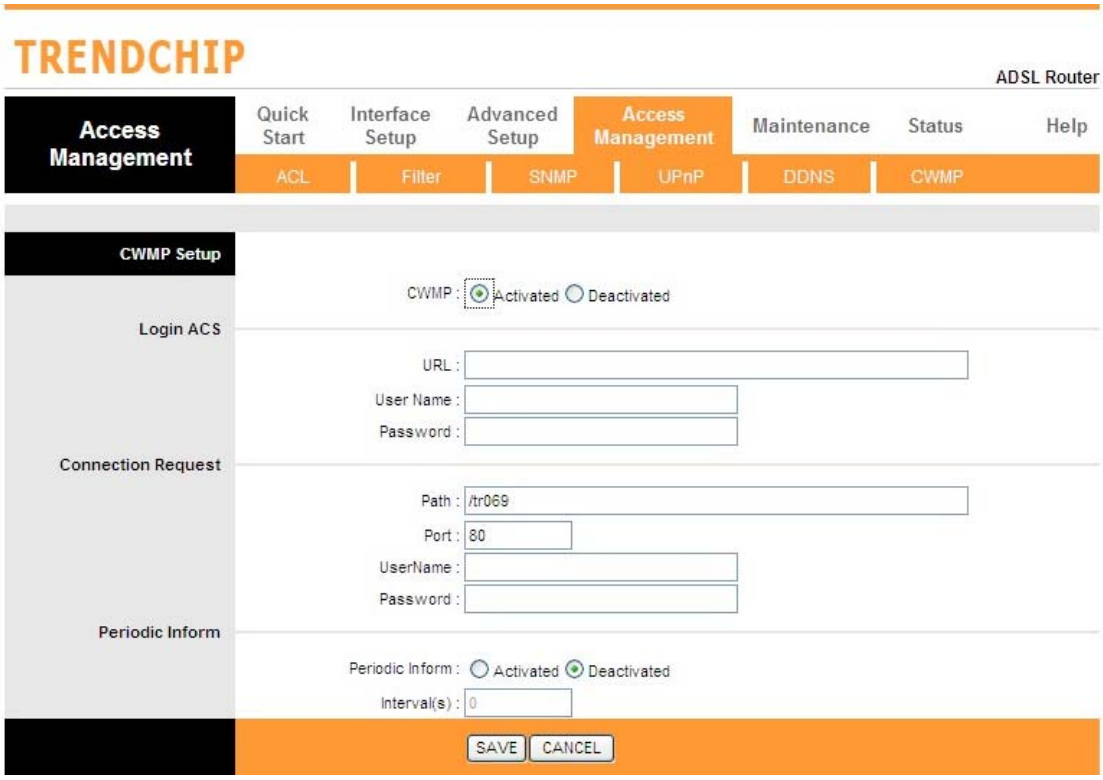
3.4.5 DDNS

The Dynamic Domain Name System lets you use a static host name with a dynamic IP address. User should type the host name, user name and password assigned to your ADSL Router by your Dynamic DNS provider. User also can decide to turn on DYNDNS Wildcard or not.



3.4.6 CWMP

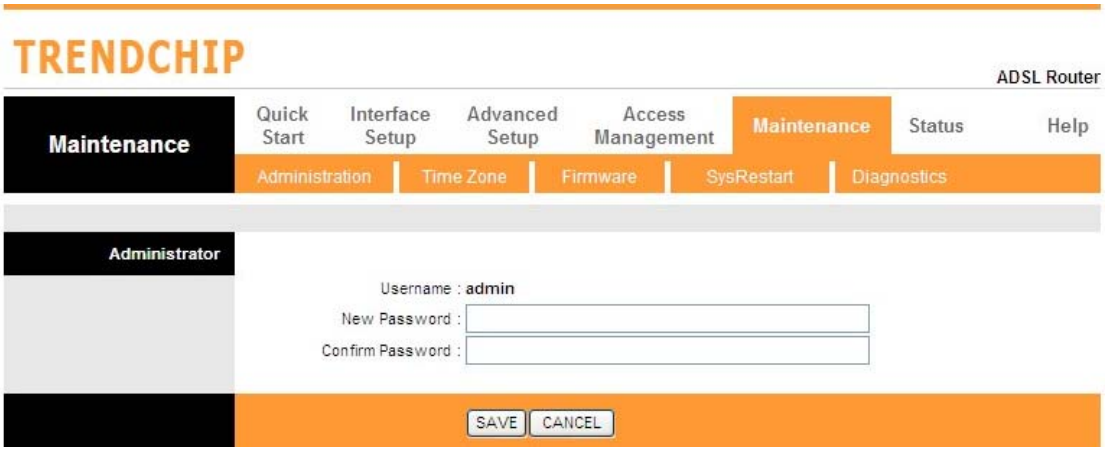
It is description for CWMP.



3.5Maintenance

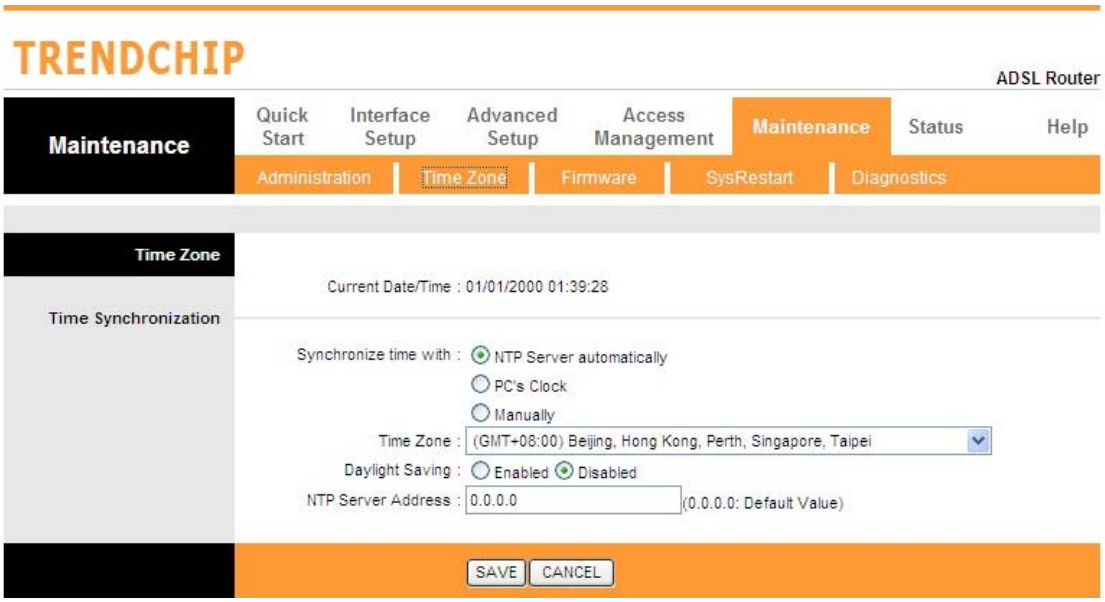
3.5.1 Administration

There is only one account that can access Web-Management interface. The default account is "admin", and the password is "admin". Admin has read/write access privilege. In this web page, you can set new password for admin.



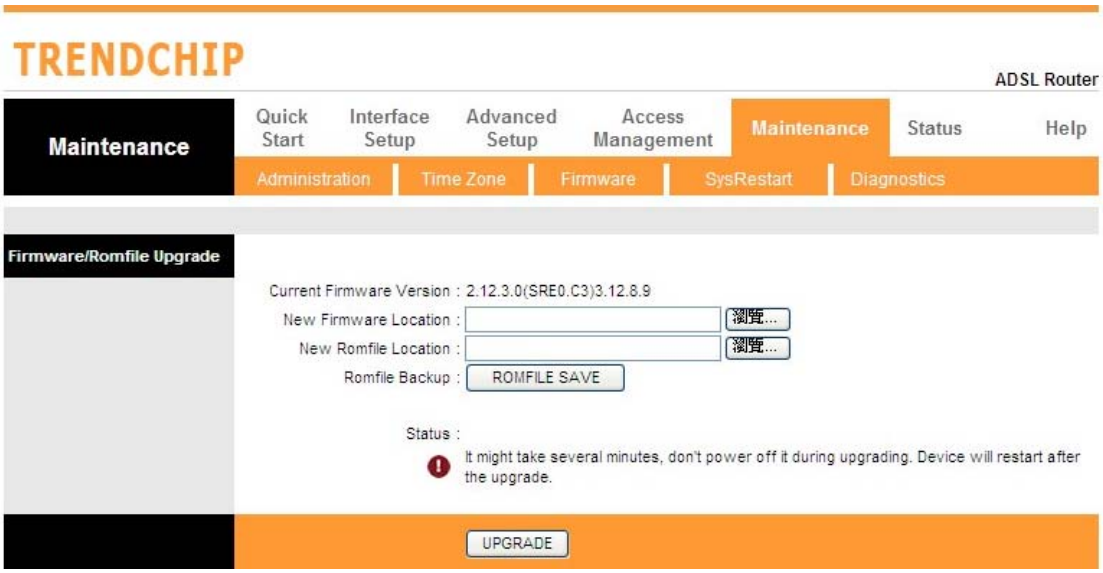
3.5.2 Time Zone

The system time is the time used by the device for scheduling services. You can manually set the time or connect to a NTP (Network Time Protocol) server. If a NTP server is set, you will only need to set the time zone. If you manually set the time, you may also set Daylight Saving dates and the system time will automatically adjust on those dates.



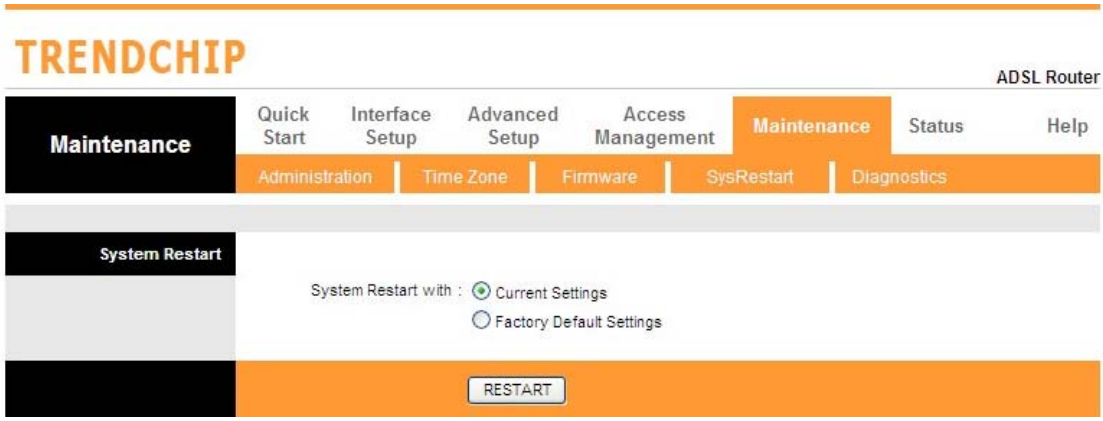
3.5.3 Firmware

You can upgrade the firmware of the Router in this page. Make sure the firmware you want to use is on the local hard drive of the computer. Click on Browse to browse the local hard drive and locate the firmware to be used for upgrade.



3.5.4 SysRestart

User can restart the device with current settings or factory default settings.



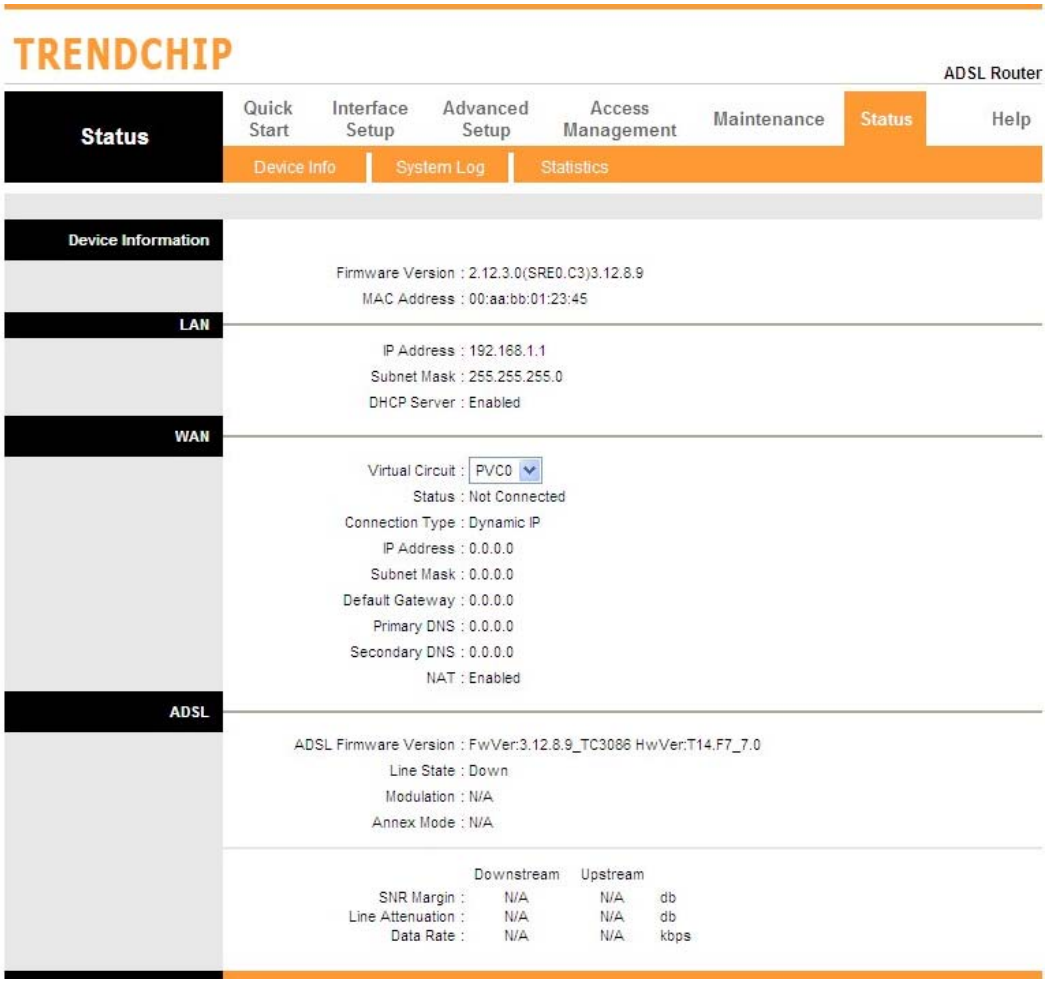
3.5.5 Diagnostics

The Diagnostic Test page shows the test results for the connectivity of the physical layer and protocol layer for both LAN and WAN sides.

3.6Status

3.6.1 Device Info

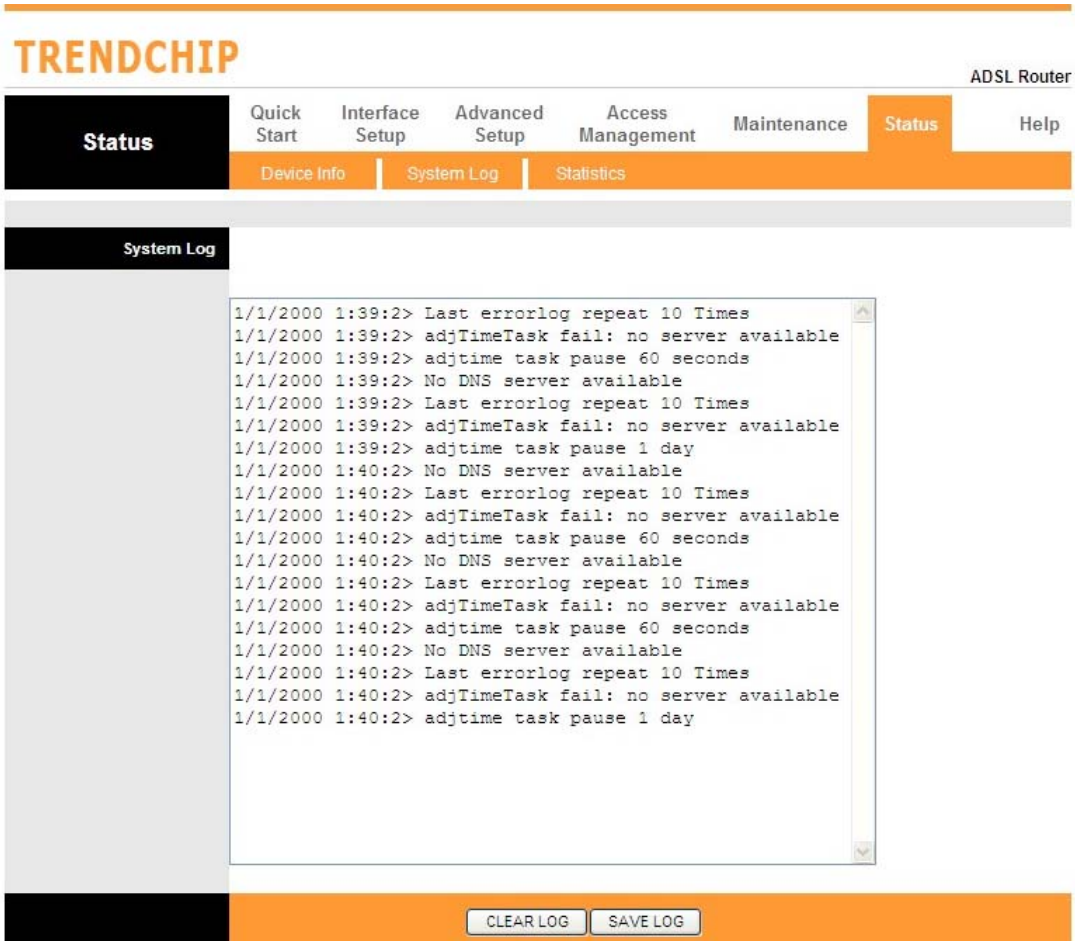
This page displays the current information for the ADSL Router. It will display the Firmware version, LAN, WAN, and MAC address information.



Item	Description
Line State	This field displays the ADSL connection process and status.
Modulation	This field displays the ADSL modulation status for G.dmt or T1.413.
Annex Mode	This field displays the ADSL annex modes for Annex A or Annex B.
Max Tx Power	This field displays the transmit output power level of the ADSL Router.
SNR Margin	Amount of increased noise that can be tolerated while maintaining the designed BER (bit error rate). The SNR Margin is set by Central Office DSLAM. If the SNR Margin is increased, bit error rate performance will improve, but the data rate will decrease. Conversely, if the SNR Margin is decreased, bit error rate performance will decrease, but the data rate will increase.
Line Attenuation	Attenuation is the decrease in magnitude of the ADSL line signal between the transmitter (Central Office DSLAM) and the receiver (Client ADSL Modem), measured in dB. It is measured by calculating the difference in dB between the signal power level received at the Client ADSL Router and the reference signal power level transmitted from the Central Office DSLAM.
Data Rate	This field displays the ADSL data rate.

3.6.2 System Log

The ADSL Router keeps a running log of events and activities occurring on the Router. If the device is rebooted, the logs are automatically cleared.


TRENDCHIP
ADSL Router
Status
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
Device Info
System Log
Statistics
System Log
1/1/2000 1:39:2> Last errorlog repeat 10 Times
1/1/2000 1:39:2> adjTimeTask fail: no server available
1/1/2000 1:39:2> adjtime task pause 60 seconds
1/1/2000 1:39:2> No DNS server available
1/1/2000 1:39:2> Last errorlog repeat 10 Times
1/1/2000 1:39:2> adjTimeTask fail: no server available
1/1/2000 1:39:2> adjtime task pause 1 day
1/1/2000 1:40:2> No DNS server available
1/1/2000 1:40:2> Last errorlog repeat 10 Times
1/1/2000 1:40:2> adjTimeTask fail: no server available
1/1/2000 1:40:2> adjtime task pause 60 seconds
1/1/2000 1:40:2> No DNS server available
1/1/2000 1:40:2> Last errorlog repeat 10 Times
1/1/2000 1:40:2> adjTimeTask fail: no server available
1/1/2000 1:40:2> adjtime task pause 60 seconds
1/1/2000 1:40:2> No DNS server available
1/1/2000 1:40:2> Last errorlog repeat 10 Times
1/1/2000 1:40:2> adjTimeTask fail: no server available
1/1/2000 1:40:2> adjtime task pause 1 day
CLEAR LOG
SAVE LOG

3.6.3 Statistics

The ADSL Router keeps statistic of traffic that passes through it. You are able to view the amount of packets that pass through the Router on both the WAN port and the LAN port. The traffic counter will reset if the device is rebooted. You can select Ethernet/ADSL to view the statistics report of LAN/WAN.